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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,436	10/27/2003	Kathleen C.M. Campbell	STU 7397	8942

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EXAMINER	
GEMBEH, SHIRLEY V	
ART UNIT	PAPER NUMBER
1618	

NOTIFICATION DATE	DELIVERY MODE
12/08/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@senniger.com

Office Action Summary	Application No.	Applicant(s)	
	10/694,436	CAMPBELL, KATHLEEN C.M.	
	Examiner	Art Unit	
	SHIRLEY V. GEMBEH	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *5/14/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-20,22-32 and 38-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-20, 22-32 and 38-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/24/08; 6/20/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The response and amendment filed on **9/28/08** has been entered.

2. Applicant's argument filed 9/28/08 has been fully considered but they are not deemed to be persuasive.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. The information disclosure statement (IDS) submitted on 6/20/08 and 6/24/08 has been reviewed.

5. Claims 1, 3-20, 22-32 and 38-40 are pending in this office action. Claims 38-40 are newly added.

6. Claims 1,7-9, 20 and 23-25 stand rejected under 35 U.S.C. 102(b) as being anticipated by Gabrilove, (US 4,961,926) for the reasons made of record in Paper No. 20080627 and as follows.

Applicant argues: Gabrilove does not teach the claimed invention because Gabrilove discloses method of preventing mucositis by the administration of granulocyte colony stimulating factor (GCSF) or a peptide with a molecular weight of 20,000 Dalton

proteins. Applicant asserts that the claimed invention is to a small molecule of approximately 150 Daltons. Next, Applicant argues that the products do not meet the definition of a salt, thus does not anticipate the instant claimed invention.

In Response: Contrary to Applicants' assertions, Gabrilove does disclose treating oral mucositis in a human patient resulting from radiation by the administration of a protective agent comprising methionine. See col. 4, lines 25-30 and 35-37 and col. 8, lines 60-65. The only method step claimed is the administration of a protective agent comprising methionine. The argument that the compound of Gabrilove is a large molecule with a molecular weight of 20,000 Daltons is not persuasive, because the claims recite open language (i.e., comprising). Arguments related to molecular weight are also irrelevant because the claims are not drawn to a composition with a molecular weight of 150. Thus, the limitation set forth by the above claims has been met. Applicant should note that "a protective agent *comprising* methionine" is taught by Gabrilove because, as stated in the last office action of record, any compound *comprising* methionine is encompassed by the current claim language.

Lastly, in regards to remarks concerning the pharmaceutical salt, applicant should note that the claim recites the alternate "or". Therefore, the limitation of a pharmaceutical composition need not be met. Applicant's arguments have been fully considered but they are not persuasive for the reasons given supra.

7. Claims 3-9, 10-19, 22, 26-32 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell US 6,187,817 in view of Gabrilove, US 4,961,926

further in view of Kil et al., WO 03/045334 (same as 2003/0157191) for the reasons of record in paper No. 20080627. Note that claims 20 and 23-25 were rejected under 102 in ¶ #6 above.

Applicant argues: Campbell does not teach reducing oral mucositis, and that the disclosure of methionine by Kil for the GCSF protein of Gabrilove to treat radiation exposure or administration of an-anti-tumor platinum compound would not have been obvious. Applicant further argues that neither Campbell, nor Gabrilove teach the combination of chemoprotectants that ameliorate at least one side effect of chemotherapy. Further, Applicant alleges that oral mucositis develops in treatment of cancers in the oral cavity or nasalpharyngeal area due to the proximity of the oral mucosa. By way of example Applicant states that breast cancer would not result in oral mucositis because of the proximity of the different tissues.

In response: All that the claims require is that methionine is administered. It is noted that Campbell does not expressly teach reducing oral mucositis, however, Campbell does teach *administering* D-methionine (i.e., a protective agent) to reduce or ameliorate toxic side effects of anticancer chemotherapeutic drugs (as it relates to instant claim 20). All that is required by the instant claim is the administration of compounds comprising methionine. Further, oral mucositis is a well known toxic side effect of chemotherapy (known in the art prior as evident by Durlacher et al., (Supportive care in Cancer; 8(5), 366-371 (2000), see abstract)). Thus, one of ordinary skill in the art would know to employ methionine as taught by Campbell for the treatment of oral mucositis.

As to the allegation that oral mucositis only occurs in patients suffering from oral cavity or nasal pharyngeal cancers, again as evident by Durlacher et al, oral mucositis is prevalent in patients receiving chemotherapy for solid tumors wherein breast cancer is made of example (see pages 366 and 367).

Lastly, Applicant's argument that neither reference teaches the claimed invention is found not persuasive because, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Examiner has appropriately shown the use and motivation of the combined references by stating the following:

Campbell teaches reducing gastrointestinal toxicity, through *administering* D-methionine, wherein the protective agent is D-methionine as required by instant claims 3-4 and 22 (see abstract and col. 1, lines 20). Campbell also teaches methionine is administered at a dosage orally (as it relates to instant claim 13).

Gabrilove teaches treating oral mucositis in a human patient resulting from radiation, by *administering* methionine. See col. 4, lines 25-30 and 35-37 and col. 8, lines 60-65 (as it relates to instant claim 1).

Kil et al. teach orally administering methionine and DL- methionine to patients for the ameliorating undesirable effect of chemotherapy. See page 1 para. 0003-0006, 0008 and 0030.

With that said, the reasons why one of ordinary skill in the art would have been motivated to employ the teachings of the above cited prior art of record has been established because all that is required for the treatment is the administration step. Applicant should also note that patient exposed to radiation is inclusive of all humans since every human is exposed to radiation on a daily basis from the sun, therefore orally taking methionine will intrinsically reduce oral mucositis.

Applicant's arguments have been fully considered but they are not persuasive for the reasons given above.

8. No claim is allowed.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHIRLEY V. GEMBEH whose telephone number is (571)272-8504. The examiner can normally be reached on 8:30 -5:00, Monday- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL HARTLEY can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/S. V. G./
Examiner, Art Unit 1618
11/21/08

/Robert C. Hayes/
Primary Examiner, Art Unit 1649